

Patent Application
Docket No. CRX-106XC1
Serial No. 10/662,492

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Examiner : Patrick Butler
Art Unit : 1732
Applicant : Albert E. Ortega
Serial No. : 10/662,492
Conf. No. : 9209
Filed : September 15, 2003
For : Method of Reducing Static in a Spunbond Process

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

EXPERT DECLARATION OF ALBERT E. ORTEGA UNDER 37 CFR §1.132

Sir:

I, Albert E. Ortega, hereby declare:

THAT, I have reviewed the above-referenced patent application, including the claims;

THAT, I have reviewed the Office Action mailed December 12, 2006, along with the references cited therein;

THAT, I have extensive experience in the field of spunbond processes;

And being thus duly qualified, do further declare as follows:

1. Using bicomponent fibers containing metal or carbon in a spunbond causes color pollution, is very expensive, and inserts a yarn or filaments with different orientation or physical properties than that of the filaments created by the spunbonded equipment. Color pollution is a serious problem because the color of the product in spunbonded processes is very important. Additionally, using bicomponent fibers containing metal or carbon introduces particulate matter into the melt stream. The addition of particulate matter in the melt stream shortens polymer filter life and pack life. Slot draw lines have very large packs. Changing and cleaning them is very expensive so using solid particulate matter like metals or carbon is not desirable.
2. Regarding which nylon to use in the process disclosed in the Gillespie reference, nylon 6,6 is preferred over nylon 6 from a compatibility point of view and is the more likely initial choice. Additionally, fabric properties, including tenacity, are determined by several factors, such as polymer type, the spunbond process settings, the polymer additives, and the fabric construction parameters. Fabric construction, in many instances, can impact strength more so than fiber properties.
3. Spunbonding of polyester, nylon 6, and nylon 6,6 must be accomplished above the melt point of the polymers. All three have melt points above 200 °C, and nylon spinning processes sometimes reach temperatures above 300 °C. Further, it is important that the polymer that has the antistatic agent must be present at the surface of the filament to achieve the desired reduction in static buildup.
4. The problem of high static levels at an attenuator exit in spunbond processes has been known for years. Before the invention in the referenced patent application, Cerex Advanced Fabrics presented two leading equipment suppliers of spunbonding equipment with the challenge to reduce or eliminate static buildup in a spunbond process. Both suppliers had pilot facilities and had done extensive research regarding spunbond processes utilizing polyester, polyethylene, and polypropylene fibers. Despite being skilled in the art, neither supplier arrived at the method claimed in the referenced patent application.

I hereby further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

By: Date: 10/11/07